Claims

1. A compound of formula (Ia) or (Ib)

$$R^{1}$$
 N
 R^{3}
 R^{4}
 R^{1}
 R^{2}
 R^{3}
 R^{4}
 R^{2}
 R^{3}
 R^{3}
 R^{4}
 R^{2}
 R^{3}
 R^{3}
 R^{4}
 R^{2}
 R^{3}

wherein:

5

one of X and Y represents S, and the other represents O or S;

R¹ represents hydrogen or C1 to 6 alkyl;

R² represents hydrogen or C1 to 6 alkyl; said alkyl group being optionally substituted by:

- i) a saturated or partially unsaturated 3- to 7-membered ring optionally incorporating one or two heteroatoms selected independently from O, N and S, and optionally incorporating a carbonyl group; said ring being optionally substituted by one or more substituents selected from halogen, hydroxy, C1 to 6 alkoxy and C1 to 6 alkyl; said alkyl being optionally further substituted by hydroxy or C1 to 6 alkoxy; or
- ii) C1 to 6 alkoxy; or
- iii) an aromatic ring selected from phenyl, furyl or thienyl; said aromatic ring being optionally further substituted by halogen, C1 to 6 alkyl or C1 to 6 alkoxy;

R³ represents hydrogen or C1 to 6 alkyl;

R⁴ represents halogen, C1 to 6 alkyl substituted by one or more halogen atoms, C1 to 6 alkoxy or C1 to 6 thioalkoxy; said alkoxy or thioalkoxy group being optionally further substituted by halogen or OH;

and pharmaceutically acceptable salts thereof.

25 2. A compound according to Claim 1 wherein X represents S and Y represents O.

WO 2005/037835

- 3. A compound according to Claim 1 or Claim 2 wherein R³ represents H.
- 4. A compound according to any one of Claims 1 to 3 wherein R² represents optionally substituted C1 to 6 alkyl.
 - 5. A compound of formula (Ia) or (Ib), according to Claim 1, or a pharmaceutically acceptable salt thereof, for use as a medicament.
- 6. A pharmaceutical composition comprising a compound of formula (Ia) or (Ib) according to Claim 1, or a pharmaceutically acceptable salt thereof, optionally in admixture with a pharmaceutically acceptable adjuvant, diluent or carrier.
 - 7. A method of treating, or reducing the risk of, diseases or conditions in which inhibition of the enzyme MPO is beneficial which comprises administering to a person suffering from or at risk of, said disease or condition, a therapeutically effective amount of a compound of formula (Ia) or (Ib), as defined in any one of Claims 1 to 4, or a pharmaceutically acceptable salt thereof.
- 8. The use of a compound of formula (Ia) or (Ib) as defined in any one of Claims 1 to 4, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament, for the treatment or prophylaxis of diseases or conditions in which inhibition of the enzyme MPO is beneficial.
- 9. The use of a compound of formula (Ia) or (Ib) as defined in any one of Claims 1 to 4, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament, for the treatment or prophylaxis of neuroinflammatory disorders.
- 10. A process for the preparation of a compound of formula (Ia) or (Ib), as defined in any one of Claims 1 to 4, or a pharmaceutically acceptable salt, enantiomer, diastereomer or racemate thereof, wherein the process comprises:

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(a) reaction of a compound of formula (IIa) or (IIb)

$$R^{1}$$
 N
 R^{3}
 R^{4}
 R^{1}
 R^{2}
 R^{3}
 R^{4}
 R^{2}
 R^{3}
 R^{3}
 R^{4}
 R^{2}
 R^{3}
 R^{3}
 R^{4}
 R^{2}
 R^{3}
 R^{3}
 R^{4}
 R^{2}
 R^{3}
 R^{3}

wherein R^1 , R^2 , R^3 and R^4 are as defined in formula (Ia) or (Ib), X represents O or S and Y represents O;

with a sulphurising compound such as Lawesson's reagent or phosphorus pentasulphide; to give a corresponding compound wherein Y represents S; or

(b) reaction of a diamine of formula (IIIa) or (IIIb)

wherein R¹, R², R³, X and Y are as defined in formula (Ia) or (Ib); with a trialkylorthoester or with an alpha-halo-substituted carboxylic acid or anhydride; WO 2005/037835 PCT/SE2004/001477

20

and where necessary converting the resultant compound of formula (Ia) or (Ib), or another salt thereof, into a pharmaceutically acceptable salt thereof; or converting the resultant compound of formula (Ia) or (Ib) into a further compound of formula (Ia) or (Ib); and where desired converting the resultant compound of formula (Ia) or (Ib) into an optical isomer thereof.

5